

47423. El Muñeco, Provincia de Cartago, *Standley & Torres* 51332, 51275, 51177.

This is the most common Costa Rican species of *Ilex*, a shrub or tree of 2.5 to 9 meters, with smooth bark, dark green leaves, and greenish white flowers. It grows always in wet forest.

6. ILEX CARPINTERAE Standl. Journ. Washington Acad. Sci. **15**: 477. 1925.

The type was collected on Cerro de la Carpintera, Province of Cartago. The following new collections, at 1,400 to 2,400 meters, may be reported: Cerros de Zurquí, Provincia de Heredia, *Standley & Valerio* 50597. El Muñeco, Provincia de Cartago, *Standley & Torres* 50881, 50918, 50926.

This species is very close to *I. lamprophylla*, and doubtfully distinct. More material will be necessary in order to determine its status. It is a shrub or tree of 2 to 6 meters, with dark green, usually lustrous leaves.

BOTANY.—*Notes on the Genus Sanchezia*.¹ E. C. LEONARD, U. S. National Museum. (Communicated by E. P. KILLIP.)

Sanchezia, a genus of the family *Acanthaceae*, tribe *Ruellieae*, was briefly described² by Ruiz and Pavón in 1794, and four years later was formally published by these authors,³ two species, *S. ovata*, the type, and *S. oblonga* being described. From that time on, no further study of this interesting genus seems to have been made until 1847, when it was redescribed by Nees in Martius' *Flora Brasiliensis*⁴ under the name *Ancylogyne*. Nees proposed two species, *A. munita* and *A. macrocnemis*; the latter proves to be identical with *S. oblonga* Ruiz & Pavón. In his treatise upon the family *Acanthaceae* in DeCandolle's *Prodromus*,⁵ published the same year, Nees adds *A. peruviana* and *A. capitata*. Hooker in 1866 re-established⁶ the old generic name, *Sanchezia*, and added the species *S. nobilis*. The only recent attempt to bring together all the members of this genus is that by Lindau,⁷ who published a key which included ten species.

The genus was named for José Sánchez, a professor of botany at Cádiz. It consists of shrubby or herbaceous plants with large firm leaves, and attractive, bright yellow or purple, sessile flowers in spikes or racemes. The most reliable characters by which the genus may be

¹ Published by permission of the Secretary of the Smithsonian Institution. Received September 23, 1926.

² Fl. Peruv. Chil. Prodr. 5. pl. 32. 1794.

³ Fl. Peruv. Chil. 1: 7. pl. 8, f. c, b. 1798.

⁴ Mart. Fl. Bras. 97: 63. 1847.

⁵ DC. Prodr. 11: 221. 1847.

⁶ In Curtis' Bot. Mag. 92: pl. 5594. 1866.

⁷ Bull. Herb. Boiss. II. 4: 315. 1904.

recognized are found in the flowers; the corolla is slender and nearly regular with suborbicular, entire or emarginate lobes; the two stamens, usually exserted, are accompanied by a pair of staminodes.

Natives of tropical America, these plants are confined to the wet forests of the northern Andes, but, being both attractive and adaptable to cultivation, they have reached regions far removed from their natural haunts. Collections have been seen from Costa Rica, Cuba, Java, Siam, and Amboina.

Nineteen species are described in the present paper, and there is reason to believe that many more will be discovered when the rich fields of the tropical Andes have been more thoroughly explored.

KEY TO THE SPECIES

- Bracts large, conspicuous, ovate, longer than the bractlets or the sepals, inclosing the flowers in a cuplike involucre.
 - Leaves pubescent.....1. *S. ovata*.
 - Leaves glabrous.
 - Corolla 3 cm. long or less; stamens slightly exserted.....2. *S. oblonga*.
 - Corolla 4 cm. long or more; stamens distinctly exserted.
 - Staminodes 2 mm. long.....3. *S. munita*.
 - Staminodes 4 mm. long or longer.
 - Corolla densely pubescent with straight silky appressed hairs
 - 4. *S. sericea*.
 - Corolla glabrous or sparsely pubescent with minute curved hairs.
 - Corolla pubescent, yellow or purple.
 - Flowers yellow; leaf blades finely undulate-dentate
 - 5. *S. macbridei*.
 - Flowers purple; leaf blades coarsely undulate-dentate
 - 6. *S. peruviana*.
 - Corolla glabrous, yellow.
 - Bracts connate at least to middle.
 - Lateral nerves 15 to 17 on either side of the midrib; corolla lobes 5 mm. long.....7. *S. cyathibracteata*.
 - Lateral nerves 9 to 12 on either side of the midrib; corolla lobes 3 mm. long.....8. *S. pennellii*.
 - Bracts not connate.
 - Leaf blades rounded at base; petiole slender; corolla tube 4 to 6 mm. broad.....9. *S. stenantha*.
 - Leaf blades gradually narrowed to a winged petiole; corolla tube 8 to 9 mm. broad.
 - Staminodes short, about 5 mm. long.....10. *S. nobilis*.
 - Staminodes about 2.5 cm. long.....11. *S. speciosa*.
- Bracts small, ovate or oblong, usually shorter than bractlets or sepals or, if much longer, linear-attenuate, not inclosing the flowers in a conspicuous cuplike involucre.
 - Inflorescence capitate.....12. *S. capitata*.

Inflorescence spicate or paniculate.

Bracts filiform, equaling or larger than the flowers. . . . 13. *S. filamentosa*.
 Bracts ovate or oblong, much shorter than the flowers.

Staminodes very short, about 2 mm. long; inflorescence spicate
 3. *S. munita*.

Staminodes 1 cm. long or more; inflorescence paniculate (sometimes
 spicate in no. 17).

Flowers red or purplish.

Corolla 3 cm. long; stamens included. 14. *S. parviflora*.

Corolla 4 cm. long or more; stamens exerted.

Calyx lobes oblong, obtuse. 15. *S. loranthifolia*.

Calyx lobes lanceolate, acute.

Corolla 5 cm. long; inflorescence a large elongate branched
 panicle. 16. *S. longifolia*.

Corolla 4 cm. long; inflorescence very small, a spike or a
 sparingly branched panicle. 17. *S. sprucei*.

Flowers yellow.

Corolla 5 to 5.5 cm. long; stamens exerted 5 cm. beyond the
 corolla tube; lateral veins 12 to 14 on each side of the midrib

18. *S. parvibracteata*.

Corolla 4.5 cm. long; stamens slightly exerted; lateral veins 9 to
 10 on each side of the midrib. 19. *S. ecuadorensis*.

1. *SANCHEZIA OVATA* Ruiz & Pavón, Fl. Peruv. Chil. 1: 7. pl. 8, f. c. 1798.

Sanchezia glabra Pers. Syn. Pl. 1: 24. 1805.

A herbaceous plant with glabrous yellow flowers and ovate entire pubescent leaves, reported by Ruiz and Pavón from Cuchero, Pozuzo, and Pillao in the vicinity of Chachauassi, Peru.

2. *SANCHEZIA OBLONGA* Ruiz & Pavón, Fl. Peruv. Chil. 1: 7. pl. 8, f. b. 1798.

Sanchezia hirsuta Pers. Syn. Pl. 1: 24. 1805.

Ancyclogyne macrocnemis Nees in Mart. Fl. Bras. 9⁷: 63. pl. 7. 1849.

A herbaceous plant with oblong-lanceolate glabrous leaves and pubescent yellow flowers, reported by Ruiz and Pavón from the same localities as the preceding.

3. *SANCHEZIA MUNITA* (Nees) Planch. Fl. Serr. Jard. 23: 257. 1883.

Ancyclogyne munita Nees in Mart. Fl. Bras. 9⁷: 63. pl. 7. 1847.

Type collected by Martius in woods along the Madeira River, Province of Rio Negro, Brazil.

An erect shrub about one meter high, with red flowers.

4. *Sanchezia sericea* Leonard, sp. nov.

Plant shrubby, 1.5 meters high; stems quadrangular, glabrous; leaves oblong-obovate, 15 to 30 cm. long, 7 to 11 cm. wide, rather abruptly narrowed at apex to an acuminate tip, gradually narrowed from below the middle to a short winged petiole, distinctly undulate-dentate, both surfaces glabrous and bearing numerous cystoliths 0.5 to 0.75 mm. long, the lateral veins 14 or 15 on each side of the midrib; inflorescence terminal, simple, equaling or slightly

exceeding the upper pair of leaves, the rachis glabrous or slightly puberulent, the flowers 6 or more, sessile, crowded in the axils of the bracts and forming fascicles 2 to 5 cm. wide; bracts ovate, up to 5 cm. long, 2.5 to 3 cm. broad (the immature smaller), dark red, glabrous, bearing cystoliths; bractlets oblong-ovate, 3 to 4 cm. long, 1 to 1.5 cm. wide, obtuse, pubescent; sepals narrowly obovate, 2.5 to 2.8 cm. long, the 2 outer 5 to 6 mm. broad, the 3 inner 3 to 4.5 mm. broad; corolla pale yellow, the tube 5 cm. long, 7 to 8 mm. wide at throat, gradually narrowed from middle to 3 mm. at base, silky-pubescent without, the lobes 4 mm. long, 2 mm. wide, emarginate; stamens 4 to 4.5 cm. long, attached to the corolla tube about 4 mm. above the base, slightly exerted; staminodes 4 to 5 mm. long; style 4 to 4.5 cm. long, glabrous; ovary 4 mm. long; fruit not seen.

Type in the U. S. National Herbarium, no. 1,196,524, collected on the moist banks of the Pastaza River between Baños and Cashurco, Province of Tungurahua, Ecuador, altitude 1,300 to 1,800 meters, September 25, 1923, by A. S. Hitchcock (no. 21801).

Sanchezia sericea differs from other species of this genus in the large, strongly undulate-dentate leaves and densely silky-pubescent corolla.

5. *Sanchezia macbridei* Leonard, sp. nov.

Herbaceous (?), about 1.5 meters high; stem glabrous, quadrangular; leaves elliptic-oblong, 20 to 30 cm. long, 8 to 12 cm. wide (the lowermost probably larger), abruptly acuminate at apex, narrowed to a short winged petiole with a somewhat clasping base, glabrous, entire or finely undulate-dentate, the cystoliths scattered, the lateral veins 14 to 18 on each side of the midrib; inflorescence spicate, or occasionally with a few branches, equaling or slightly shorter than the upper pair of leaves, the internodes 2 to 9 cm. long, the flowers 10 or more, clustered in the axils of the bracts; bracts ovate, 3 to 5 cm. long, 3 cm. or less broad at base, the lower abruptly long-acuminate, the upper obtuse at apex, red, glabrous, bearing cystoliths; bractlets oblong, 2.5 cm. long, about 1 cm. broad, obtuse at apex; sepals ligulate-obovate, rounded at apex, the 3 outer 2 to 2.5 cm. long, 3 to 6 mm. broad, the 2 inner 1.5 to 1.8 cm. long, 2 to 4 mm. broad; corolla yellow, the tube 5 cm. long, finely pubescent without, the lobes 4 to 5 mm. long, 2.5 mm. broad, rounded at apex; stamens inserted on the corolla tube about 5 mm. above the base, the filaments 4.5 cm. long, exerted 5 mm. beyond the throat of the corolla, sparingly pilose; staminodes 1.5 to 1.8 cm. long; style 6 cm. long, pubescent toward the base; fruit not seen.

Type in the herbarium of the Field Museum of Natural History, no. 536099, collected on the edge of a sunny motaña, at the mouth of the Chinchao River, Pampayacu, Peru, altitude about 1,200 meters, July, 1923 by J. F. Macbride (no. 5056).

From dried specimens this plant superficially resembles *S. peruviana* (DC.) Rusby, but, when fresh, it is readily distinguished by its larger yellow, not red, flowers.

6. *SANCHEZIA PERUVIANA* (DC.) Rusby, Mem. Torrey Club **6**: 103. 1896.

Ancylogyne peruviana DC. Prodr. **11**: 222. 1847.

Type collected by Matthews (no. 1221) at Sesuija, Peru.

Specimens examined:

PERU: Pozuzo, *J. F. Macbride* 4665 (N, F).⁸BOLIVIA: San Carlos, Mapiri, *Buchtien* 1403 (N, Y); *Bang* 1473 (N, G), 2367 (N, G).

JAVA: Cultivated in the Buitenzorg Botanical Garden, 237 (N).

SIAM: Bangkok, *Zimmermann* 50 (N).

A shrub, often cultivated for its showy purple flowers.

- 7.
- SANCHEZIA CYATHIBRACTEATA*
- Milbr. Notizbl. Bot. Gart. Berlin 9: 267. 1925.

Type collected at the mouth of the Capanahua River, eastern Peru, by Tessmann (no. 3134).

A shrub with glabrous yellow flowers and large red connate bracts. This species is closely related to the following.

- 8.
- Sanchezia pennellii*
- Leonard, sp. nov.

Low shrub; stem obscurely quadrangular, glabrous; petioles 4 cm. long, glabrous, scarcely winged; leaf blades elliptic to elliptic-obovate, 10 to 30 cm. long, 5 to 13 cm. broad, abruptly narrowed at apex to a blunt tip, gradually narrowed at base, shallowly crenate, both surfaces glabrous and bearing cystoliths 0.5 mm. long, the lateral veins 9 to 12 on each side of the midrib; inflorescence spicate, the flowers 6 to 8, sessile, crowded in the axils of the bracts and forming fascicles 3 to 6 cm. in diameter; bracts 5 cm. long, connate half their length, loosely inclosing the flower clusters, the free portion broadly ovate, 3 to 3.5 cm. wide, rather abruptly narrowed to a blunt apex, orange-red on at least the upper portion, glabrous, bearing cystoliths; bractlets elliptic-obovate, 2.5 cm. long, 1 cm. broad, bearing cystoliths; sepals ligulate-obovate, 10 to 15 mm. long, the 3 outer 3 to 5 mm. broad, the 2 inner 2 to 3 mm. broad, rounded at apex, glabrous; corolla yellow, 4 to 5 cm. long, 6 to 7 mm. broad at throat, gradually narrowed from middle to 2 mm. at base, glabrous, the lobes oblong, 3 mm. broad, rounded and emarginate at apex; stamens attached to the corolla tube 5 mm. above its base, the filaments 4 cm. long, exserted 8 mm. beyond the throat of the corolla, pilose; staminodes 4 to 5 mm. long; style 5.5 cm. long, glabrous; fruit not seen.

Type in the U. S. National Herbarium, no. 1,043,822, collected in a sandy loam forest along the Magdalena River at Vuelta de Acuña, Department of Antioquia, Colombia, altitude 125 to 130 meters, January 14, 1918, by F. W. Pennell (no. 3798).

Additional specimens examined:

PANAMA: Forests around Pinogana, southern Darién, *Pittier* 6527 (N). Marragantí, *Williams* 659 (N, Y).COLOMBIA: Brazo de Moro, on the Magdalena River above Barranca Bermeja, *Niemeyer* 1 (N). Boca Verde, on the Sinu River, Department of Bolívar, *Pennell* 4573 (Y, G).

Sanchezia pennellii is closely allied to *S. cyathibracteata* Milbr. and agrees well with the original description of that species except that it has smaller corolla lobes and fewer lateral leaf veins. The five ample specimens cited

⁸ N = U. S. National Museum; Y = Herbarium of the New York Botanical Garden; G = Gray Herbarium; F = Herbarium of the Field Museum of Natural History.

are uniform and show no variation other than in the size of the leaf blades and inflorescence. There is no indication that the leaves bear as many as 15 lateral veins on each side of the midrib or that the corolla lobes reach 5 mm. in length. Further ground for proposing this new species is afforded by its range. All the specimens examined by the writer were collected in the forests of northern Colombia and southern Panama, whereas the type of *S. cyathibracteata* was collected in the wet forests of the Amazon Basin in eastern Peru, two regions with very different floras.

The material in the U. S. National Herbarium was distributed as *S. nobilis* Hook. f., which, although closely related, has distinct bracts and narrower leaves with more broadly winged petioles.

9. *Sanchezia stenantha* Leonard, sp. nov.

A glabrous shrub about 1 meter high; stems quadrangular; petioles slender, 4 to 6 cm. long; leaf blades ovate, 10 to 20 cm. long, 8 to 13 cm. wide (the lower probably larger), abruptly acuminate at apex, rounded at base, undulate, the cystoliths more numerous on the upper surface than on the lower, the lateral veins 9 to 11 on each side of the midrib; inflorescence a terminal interrupted spike, the internodes 3 to 7 cm. long, the flowers 6 or more, crowded in the axils of the bracts; bracts ovate, 3 to 4 cm. long, up to 2.5 cm. broad at base, acute at apex, with few cystoliths; bractlets oblong-obovate, slightly shorter than the bracts, the cystoliths few; sepals equal, narrowly obovate, rounded at apex, the 2 outer 6 to 8 mm. broad, the 3 inner 4 to 5 mm. broad; corolla bright yellow, glabrous, 4.8 cm. long, 4 to 5 mm. broad at base, 6 to 7 mm. wide above middle, narrowed at throat, the lobes oval, 3 mm. long, 3.5 mm. broad, emarginate, reflexed; stamens inserted on the corolla tube 5 mm. above its base, 4 cm. long, exerted 8 to 12 mm. beyond the corolla tube, sparsely pilose; anthers 5 mm. long, pubescent; staminodes 1.3 to 1.4 cm. long; style equaling or slightly longer than the stamens, glabrous; fruit not seen.

Type in the herbarium of the Field Museum of Natural History, no. 535709, collected in a stream at Pozuzo, Peru, altitude about 650 meters, January, 1923, by J. F. Macbride (no. 4634).

This species is a very distinct one, easily recognized by the broad ovate leaf blades with round bases, the slender wingless petiole, and the narrow corolla tube.

10. *SANCHEZIA NOBILIS* Hook. f. in Curtis' Bot. Mag. 92: pl. 5594. 1866.

The original description was based on material collected by Pearce in Ecuador. Although there is little in this description to differentiate *S. nobilis* from closely related glabrous yellow-flowered species, the accompanying plate discloses a number of important and interesting facts. The branched inflorescence and distinct bracts of the plant pictured in this colored plate contrast sharply with the large spike and connate bracts of *S. pennellii* Leonard and *S. cyathibracteata* Milbr. The resemblance to *S. speciosa* Hook. f. is, however, much closer. In the original description Hooker states that the leaf blades are either oblong-obovate or oblong-lanceolate. The colored plate shows a

plant with leaves strongly oblong-obovate, very different from the oblong-elliptic leaves of *S. speciosa*. Figure 2 in this plate is a longitudinal section of a flower, showing clearly the very short staminodes, scarcely 5 mm. long, which are characteristic of *S. pennellii* and *S. cyathibracteata*, but not like the long slender ones found in *S. speciosa*.

It is interesting to note that this species is not represented in the U. S. National Herbarium, although the majority of the specimens of *Sanchezia* had been determined as *S. nobilis*, and doubtless much of the material referred to *S. nobilis* in other herbaria belongs to other species.

11. *Sanchezia speciosa* Leonard, sp. nov.

Plant shrubby; stem quadrangular; leaves oblong-elliptic, 10 to 25 cm. long, 3 to 7 cm. broad (the lowermost probably larger), tapering to a slender blunt apex, gradually narrowed to a short winged petiole (sometimes rather abruptly narrowed at base), both surfaces glabrous and bearing curved cystoliths 0.5 mm. long, undulate or shallowly undulate-dentate, the lateral veins 9 to 12 on each side of the midrib; inflorescence an interrupted spike (or with a few short branches), equaling or exceeding the upper pair of leaves, the internodes 1 to 3 cm. long, the flowers 3 or more in the axils of the bracts and forming fascicles 1 to 2 cm. broad; bracts ovate, blunt at apex, glabrous, bearing cystoliths; bractlets about 2 cm. long, 8 mm. broad, obtuse at apex; sepals ligulate, 1.5 to 1.8 cm. long, 3 to 5 mm. wide, rounded at apex; corolla yellow (?), the tube 4 to 5 cm. long, 7 to 8 cm. broad at throat, narrowed below the middle to 3 mm., glabrous, the lobes 3 to 4 mm. long, rounded, emarginate; stamens inserted about 5 mm. above the base of the corolla tube, the filaments 4 to 4.5 cm. long, exerted 5 to 15 mm. beyond the throat of the corolla, sparingly pilose; anthers 5 mm. long; staminodes 2.5 cm. long; style about 5 cm. long, equaling or exceeding the stamens; fruit not seen.

Type in the U. S. National Herbarium, no. 522,243, collected in the Botanical Garden of Havana, Cuba, January, 1905, by A. H. Curtiss (no. 622). Another specimen was collected from the same place and probably from the same plant by Van Hermann (no. 2700).

Additional specimen examined:

MARTINIQUE: *Duss* 835 (Y).

Both the type and Van Hermann's no. 2700 had been referred to *S. nobilis*. They differ from this species in having much longer staminodes and narrower, more pointed leaves. The colored plate of *S. nobilis* Hook. f. in Curtis' Magazine shows a plant with obovate leaf blades gradually tapering to a broadly winged base.

The type was collected from a plant grown in cultivation and its native country is unknown. It was probably procured from the Andean region in Peru or Ecuador, the center of distribution for the genus *Sanchezia*.

12. *SANCHEZIA CAPITATA* (Nees) Lindau, Bull. Herb. Boiss. II. 4: 315. 1904.

Ancylogyne capitata Nees in DC. Prodr. 11: 222. 1847.

Type collected by Matthews (no. 1230) at Pangoa, Peru.

This peculiar capitate-flowered *Sanchezia* has red flowers with long-exserted stamens.

13. *SANCHEZIA FILAMENTOSA* Lindau, Bull. Herb. Boiss. II. 4: 314. 1904.

Type collected by Ernst Ule (no. 6401) near Pongé de Cainarachi, Province of Loreto, Peru.

A shrub 1 to 3 meters high, producing pubescent purple flowers with long-exserted stamens. It is very distinct from all other species of *Sanchezia* in the long-attenuate bracts, bractlets, and sepals.

14. *Sanchezia parviflora* Leonard, sp. nov.

A glabrous shrub; stem quadrangular; leaves oblong-elliptic, 10 to 25 cm. long, 3 to 6 cm. broad (the lower probably larger), obliquely acuminate at apex, narrowed at base to a short winged petiole, entire or undulate, bearing cystoliths on both surfaces, the lateral veins 10 to 11 on each side of the midrib; inflorescence small, paniculate, 10 to 15 cm. long, the flowers 1 to 3 in the axils of the bracts; bracts oblong to linear-lanceolate, 1 to 2 cm. long, 2 to 3 mm. broad, acuminate; bractlets about 1 cm. long, 4 to 5 mm. wide; sepals oblong-lanceolate, about 2 cm. long, 3 to 5 mm. broad, acute at apex; corolla pale scarlet, the tube 3 cm. long, 6 to 7 cm. broad at throat, narrowed to 3 cm. at base, glabrous or sparsely pubescent without, pubescent at the insertion of stamens within, the lobes oblong, 4 mm. long, 2.5 cm. broad, emarginate; stamens inserted on the corolla tube about 5 mm. above the base, the filaments 2.2 to 2.5 cm. long, included or but slightly exserted, glabrous or sparsely pilose above, densely pubescent below, the anthers 5 mm. long, pubescent; staminodes 6 to 7 mm. long, pubescent below; style 2.5 to 2.7 cm. long, glabrous; fruit not seen.

Type in the U. S. National Herbarium, no. 1,196,194, collected between Santa Rosa and La Chorita, Province of Oro, Ecuador, altitude below 100 meters, August, 1923, by A. S. Hitchcock (no. 21127).

This species is well marked by the small red corolla, small inflorescence, and obliquely tipped leaves. *Sanchezia ovata* Ruiz & Pavón is described as having flowers 3 cm. long, but it has yellow flowers, a spicate inflorescence, and pubescent leaves.

15. *SANCHEZIA LORANTHIFOLIA* Lindau, Bull. Herb. Boiss. II. 4: 314. 1904.

Type collected by Ernst Ule (no. 6820) along the Cumbaso River near San Pedro, Province of Loreto, Peru.

A shrub 1 to 3 meters high with red flowers and long-exserted stamens.

16. *SANCHEZIA LONGIFLORA* Hook. f.; Planch. Fl. Serr. Jard. 23: 257. pl. 2460. 1883.

Ancylogyne longiflora Hook. in Curtis' Bot. Mag. 92: pl. 5588. 1866.

This plant was introduced into Europe about 1868 by Pearce, who collected it near Guayaquil, Ecuador. It is very well marked by the "bright vinous-purple" corolla and the lance-subulate sepals.

17. *SANCHEZIA SPRUCEI* Lindau, Bull. Herb. Boiss. 5: 648. 1894.

Type collected near Tarapoto, eastern Peru, by Spruce (no. 4325). Specimen of type collection seen in the Gray Herbarium.

S. sprucei is related to *S. parviflora* Leonard but differs in having smaller leaves, larger flowers, and tomentose stems and sepals.

18. *SANCHEZIA PARVIBRACTEATA* Sprague & Hutchinson, Kew Bull. Misc. Inf. 253. 1908.

Sanchezia sprucei salvadorensis Donn. Smith, Bot. Gaz. 44: 116. 1907.

The original description was made from a plant cultivated at Kew. Its type locality and original collector are not mentioned.

The type of *S. sprucei salvadorensis*, cultivated in the city of San Salvador, Salvador, was collected by Velasco (no. 6985). So closely does the short original description of this plant agree with *S. parvibracteata* that the writer, although he has not seen the type specimen, has reduced it to synonymy.

Sanchezia glaucophylla is a horticultural variety introduced into Europe from Brazil. It was mentioned⁹ in a report of the Russian International Horticultural Exhibition, held in St. Petersburg in 1869, and there described as a plant with "large ovate-acuminate leaves, veined with yellow" and with a red line on the midrib. This plant was undoubtedly what is now called *S. parvibracteata*.

A shrub about 1 meter high, commonly cultivated for its large panicle of beautiful yellow flowers and its yellow-veined leaves.

Specimens examined:

GUATEMALA: In garden, Department of Quezaltenango, *Rojas* 165 (N).

EL SALVADOR: Cultivated in San Salvador, *Standley* 19362 (N, Y, G); *Calderón* 588 (N, G). Cultivated in Santa Clara, Department of Ahuachapán, *Padilla* 173 (N).

JAVA: Cultivated in the Buitenzorg Botanical Garden, *Merrill* in 1902 (N, Y).

AMBOINA: *Robinson* 1787 (N, G).

Cultivated: Botanical Garden of Harvard University in 1874 (G).

19. *Sanchezia ecuadorensis* Leonard, sp. nov.

Shrub 2 to 3 meters high; stem quadrangular, glabrous; petioles about 2 cm. long, glabrous, winged, connate at base; leaf blades obovate, about 25 cm. long, 8 to 10 cm. wide (the uppermost leaves much smaller, obovate-lanceolate), rounded and abruptly acuminate at apex, gradually narrowed at base, shallowly undulate, both surfaces glabrous and covered with cystoliths 0.5 to 1 mm. long, the lateral veins 10 to 11 on each side of the midrib; inflorescence sparingly branched, the flowers 2 to 4 in the axils of the bracts and forming fascicles 1 to 1.5 cm. wide; bracts obovate, 14 to 16 mm. long, 7 to 8 mm. wide, dark red, glabrous; bractlets similar, 11 to 12 mm. long, 4 to 5 mm. broad; sepals narrowly oblong-obovate, 15 to 20 mm. long, 4 to 7 mm. broad, obtuse at apex, the tip pubescent; corolla yellow, the tube 4 to 4.5 cm. long, 8 mm. wide at throat, narrowing below the middle to 4 mm. at base, minutely pubescent above, glabrous below, the lobes 5 mm. long, 3 mm. wide, emarginate; stamens slightly or not at all exerted, the filaments 16 mm. long, attached to the corolla tube 8 mm. above the base, pilose; staminodes 10 to 13 mm. long; style 4 cm. long, glabrous; fruit not seen.

Type in the U. S. National Herbarium, no. 1,196,543, collected on the banks of the Pastaza River, between Baños and Cashurco, Province of Tungurahua, Ecuador, altitude, 1,300 to 1,800 meters, September 25, 1923, by A. S. Hitchcock (no. 4833).

Sanchezia ecuadorensis is related to *S. loranthifolia* Lindau. It closely resembles that species in many respects but differs in having yellow, not red, flowers and included or very slightly exerted stamens.

⁹ Gard. Chron. 587. 1833.